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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/239,659	01/29/1999	THOMAS A. DYE	5143-01700	6412

7590 01/25/2005
Winstead Sechrest & Minick P. C.
P. O. Box 50784
Dallas, TX 75250-0784

EXAMINER

KIM, HONG CHONG

ART UNIT PAPER NUMBER

2186

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/239,659

Applicant(s)

DYE ET AL.

Examiner

Hong C Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-38,40-46,58-70 and 95-122 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58-70 and 95-118 is/are allowed.
- 6) ☐ Claim(s) 1-3,5-23,26-38,40-46 and 119-121 is/are rejected.
- 7) ☒ Claim(s) 24,25 and 122 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Detailed Action

1. Claims 1-3, 5-38, 40-46, 58-70 and 95-122 are presented for examination. This office action is in response to the appeal brief filed on 11/26/04.
2. Applicant's Appeal Brief filed on 11/26/2004 is persuasive and, therefore, the finality of that action is withdrawn. Applicant's arguments with respect to claims 1-3, 5-38, 40-46, 58-70 and 95-122 have been considered but are deemed to be moot in view of the new grounds of rejection. The previous rejections have been withdrawn, new rejection have been given.
3. The examiner requests, in response to this Office action, any reference(s) known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the invention as defined by the independent and dependent claims. That is, any prior art (including any products for sale) similar to the claimed invention that could reasonably be used in a 102 or 103 rejection. This request does not require applicant to perform a search. This **request** is not intended to interfere with or go beyond that **required** under 37 C.F.R. 1.56 or 1.105.

The request may be fulfilled by asking the attorney(s) of record handling prosecution and the inventor(s)/assignee for references qualifying as prior art. A simple statement that the query has been made and no prior art found is sufficient to fulfill the request. Otherwise, the fee and certification requirements of 37 CFR section 1.97 are waived for those documents submitted in reply to this request. This waiver extends only

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to those documents within the scope of this request that are included in the application's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this request and any information disclosures beyond the scope of this are subject to the fee and certification requirements of 37 CFR section 1.97.

In the event prior art documentation is submitted, a discussion of relevant passages, figs. etc. with respect to the claims is requested. The examiner is looking for specific references to 102/103 prior art that identify independent and dependent claim limitations. Since applicant is most knowledgeable of the present invention and submitted art, his/her discussion of the reference(s) with respect to the instant claims is essential. **A response to this inquiry is greatly appreciated.**

The examiner also requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s), in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

Specification

4. Applicants are requested to update the status of the related U.S. patent application, accordingly (e.g., U.S. Patent Application Serial No. ####,### filed Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number ####,###, filed on December 01, 1990,

now abandoned; ...etc.). Also applicants are requested to include the status of the related U.S. applications or patents CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification, if any.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 37, 38, 42, 43, 45-46, 1-3, 11, 13, and 15-23 are rejected under 35 U.S.C. 102(b) as being anticipated by *Dawon*, U.S. Patent 5,553,160.

As to claim 37, *Dawson* discloses the invention as claimed. *Dawson* discloses a method for storing data in a memory (Fig. 1 Ref. 104, col. 6 lines 11-15) in a computer system (Fig. 1A), the method comprising: receiving uncompressed data (Fig. 1B, input); determining a compression mode for the data (Fig. 4 Refs. 405, 425, and 450), wherein the compression mode comprises one of lossless compression, lossy compression, or no compression (Fig. 4 Refs. 455, 440, and 410); wherein the compression mode is determined in response to one or more of: a requesting agent which provides the data; an address range where the data is stored and/or a data type of the data (Fig. 4 Refs. 405, 425, and 450, a data type reads on this limitation); selectively compressing the uncompressed data, wherein said compressing is selectively performed in response to

the compression mode for the data (Fig. 4); and storing the data in the memory (Fig. 1 Ref. 104, col. 6 lines 11-15).

As to claim 38, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively compressing: the data is compressed if said compression mode indicates compression for the data; and the data is not compressed if said compression mode indicates no compression for the data; wherein the data is stored in the memory if said compression mode indicates compression for the data in a compressed format if said compression mode indicates compression for the data; wherein the data is stored in the memory in an uncompressed format if said compression mode indicates no compression for the data (Fig. 4).

As to claim 42, Dawson discloses the invention as claimed above. Dawson further discloses wherein the data has a data type; wherein said determining the compression mode for the data comprises determining the compression mode based on the data type of the data (Fig. 4).

As to claim 43, Dawson discloses the invention as claimed above. Dawson further discloses wherein the computer system includes a CPU (Fig. 1 Ref. 101), wherein the memory comprises system memory (abstract line 6) which stores application code and data executed by the CPU (col. 5 lines 45-47, col. 6 lines 12-14, and col. 7 lines 22-23).

As to claim 45, Dawson discloses the invention as claimed above. Dawson further discloses receiving a request for the data; accessing the data from the memory in response to the request; determining a compression mode for the data in response to receiving the request; selectively decompressing the data, wherein said decompressing is selectively performed in response to the compression mode for the data; and providing the data in response to the request (col. 8 lines 19-30).

As to claim 46, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively decompressing the data is decompressed if said compression mode indicates compression for the data; and the data is not decompressed if said compression mode indicates no compression for the data (col. 8 lines 19-30 and Fig. 4).

As to claim 1, Dawson discloses the invention as claimed. Dawson discloses a method for storing data in a memory (Fig. 1 Ref. 104, col. 6 lines 11-15) in a computer system (Fig. 1A), the method comprising: receiving uncompressed data (Fig. 1B, input); determining a compression mode for the data (Fig. 4 Refs. 405, 425, and 450), wherein the compression mode comprises one of lossless compression, lossy compression, or no compression (Fig. 4 Refs. 455, 440, and 410); wherein the compression mode is determined in response to one or more of: a requesting agent which provides the data; an address range where the data is stored and/or a data type of the data (Fig. 4 Refs.

405, 425, and 450, a data type reads on this limitation); selectively compressing the uncompressed data, wherein said compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory (Fig. 1 Ref. 104, col. 6 lines 11-15).

As to claim 2, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively compressing the data is compressed using a lossless compression format if said compression mode indicates lossless compression for the data; the data is compressed using a lossy compression format if said compression mode indicates lossy compression for the data; and the data is not compressed if said compression mode indicates no compression for the data (Fig. 4).

As to claim 3, Dawson discloses the invention as claimed above. Dawson further discloses wherein the data is stored in the memory in a lossless compression format if said compression mode indicates lossless compression for the data; wherein the data is stored in the memory in a lossy compression format if said compression mode indicates lossy compression for the data; wherein the data is stored in the memory in an uncompressed format if said compression mode indicates no compression for the data (Fig. 4).

As to claim 11, Dawson discloses the invention as claimed above. Dawson further discloses wherein said determining the compression mode for the data

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comprises determining the compression mode based on the data type of the data (Fig. 4).

As to claim 13, Dawson discloses the invention as claimed above. Dawson further discloses wherein the computer system includes a CPU (Fig. 1 Ref. 101), wherein the memory comprises system memory (abstract line 6) which stores application code and data executed by the CPU (col. 5 lines 45-47, col. 6 lines 12-14, and col. 7 lines 22-23).

As to claim 15, Dawson discloses the invention as claimed above. Dawson further discloses receiving a request for the data; accessing the data from the memory in response to the request; determining a compression mode for the data in response to receiving the request; selectively decompressing the data, wherein said decompressing is selectively performed in response to the compression mode for the data; and providing the data in response to the request (col. 8 lines 19-30).

As to claim 16, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively decompressing the data is decompressed if said compression mode indicates compression for the data; and the data is not decompressed if said compression mode indicates no compression for the data (col. 8 lines 19-30 and Fig. 4).

As to claim 17, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively decompressing: the data is decompressed if said compression mode indicates the data is stored in the memory in a compressed format; and the data is not decompressed if said compression mode indicates the data is stored in the memory in an uncompressed format (col. 8 lines 19-30 and Fig. 4).

As to claim 18, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively decompressing: the data is decompressed using lossless decompression if said compression mode indicates lossless compression for the data; the data is decompressed using lossy decompression if said compression mode indicates lossy compression for the data; and the data is not decompressed if said compression mode indicates no compression for the data (col. 8 lines 19-30 and Fig. 4).

As to claim 19, Dawson discloses the invention as claimed above. Dawson further discloses wherein said storing the data in the memory includes storing compression mode information in the memory with the data; wherein the compression mode information indicates a decompression procedure for decompression of the compressed first data (col. 8 lines 19-30 and Fig. 4).

As to claim 20, Dawson discloses the invention as claimed above. Dawson further discloses wherein the compression mode information is embedded in the data (Fig. 4).

As to claim 21, Dawson discloses the invention as claimed above. Dawson further discloses wherein the compression mode information is stored in a non-compressed format regardless of the compression mode of the data (Fig. 4) .

As to claim 22, Dawson discloses the invention as claimed above. Dawson further discloses receiving a request for the data; analyzing the compression mode information to determine a compression mode for the data in response to receiving the request; accessing the data from the memory in response to the request; selectively decompressing the data, wherein said decompressing is selectively performed in response to the compression mode for the data; and providing the data in response to the request (col. 8 lines 19-30 and Fig. 4).

As to claim 23, Dawson discloses the invention as claimed above. Dawson further discloses wherein, in said selectively decompressing: the data is decompressed using lossless decompression if said compression mode information indicates lossless compression for the data; the data is decompressed using lossy decompression if said compression mode information indicates lossy compression for the data; and the data is

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not decompressed if said compression mode information indicates no compression for the data (col. 8 lines 19-30 and Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 44 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of Oka et al. (Oka) JP405204747A.

As to claims 44 and 14, Dawson discloses the invention as claimed in the above.

However, Dawson does not specifically disclose wherein the computer system further includes a memory controller which controls operation of the system memory, wherein the memory controller includes a compression/decompression engine; wherein the memory controller implements the method.

Oka discloses the computer system further includes a memory controller (Fig. 1 Ref. 10 and Constitution) which controls operation of the system memory, wherein the memory controller includes a compression/decompression engine (Fig. 1 Refs .14/16); wherein the memory controller implements the method for the purpose of reducing foot print and power consumption and increasing the throughput by minimizing the distance among devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the computer system further includes a memory controller which controls operation of the system memory, wherein the memory controller includes a compression/decompression engine; wherein the memory controller implements the method as shown in Oka into the invention of Dawson because it would reduce foot print and power consumption and increase the throughput by minimizing the distance among devices.

7. Claims 40-41, 5-10, 31-36 and 119-121 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of Tsang U.S. Patent 5,961,617.

As to claims 40 and 5, Dawson discloses the invention as claimed in the above. However, Dawson does not specifically disclose receiving one or more destination addresses indicating a storage destination for the data in the memory; wherein said determining the compression mode comprises analyzing the one or more destination addresses to determine the compression mode.

Tsang discloses receiving one or more destination addresses indicating a storage destination for the data in the memory; wherein said determining the compression mode comprises analyzing the one or more destination addresses to determine the compression mode (col. 4 lines 59+ and col. 5 line 35, different address location for compressed and uncompressed data reads on this limitation) for the purpose of reducing memory cycles and power consumption (col. 5 lines 46-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate receiving one or more destination addresses indicating a storage destination for the data in the memory; wherein said determining the compression mode comprises analyzing the one or more destination addresses to determine the compression mode as shown in Tsang into the invention of Dawson because it would reduce memory cycles and power consumption.

As to claims 41 and 9, Dawson and Tsang disclose the invention as claimed in the above. Tsang further discloses wherein the uncompressed data is received from a requesting agent; and wherein said determining the compression mode for the data comprises determining the compression mode based on the requesting agent (col. 5 line 32, SAMRT mode).

As to claims 6-8, Dawson and Tsang disclose the invention as claimed in the above. Tsang further discloses address ranges (col. 4 lines 59+ and col. 5 line 35, allocation of compressed and uncompressed memory locations reads on this limitation).

As to claim 10, Dawson and Tsang disclose the invention as claimed in the above. Tsang further discloses wherein the requesting agent is one of a CPU application or a video/graphics driver (col. 5 line 32, SAMRT mode). Dawson also further discloses wherein the requesting agent is one of a CPU application or a video/graphics driver (col. 8 lines 9+).

As to claims 31 and 35, Dawson discloses a method for storing data in a memory in a computer system (Fig. 1), the method comprising: receiving uncompressed data (Fig. 1B, input); determining a compression mode for the data (Fig. 4 Refs. 405, 425, and 450); selectively compressing the data (Fig. 4 Refs. 405, 425, and 450); and storing the data (Fig. 1 Ref. 104, col. 6 lines 11-15) .

However, Dawson does not specifically disclose receiving one or more destination addresses indicating a storage destination.

Tsang discloses (col. 4 lines 59+ and col. 5 line 35, different address location for compressed and uncompressed data reads on this limitation) for the purpose of reducing memory cycles and power consumption (col. 5 lines 46-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate receiving one or more destination addresses indicating a storage destination as shown in Tsang into the invention of Dawson because it would reduce memory cycles and power consumption.

As to claim 33, Dawson discloses a method for storing data in a memory in a computer system (Fig. 1), the method comprising: receiving uncompressed data from a requesting agent (Fig. 1B, input); determining a compression mode for the data (Fig. 4 Refs. 405, 425, and 450); selectively compressing the data (Fig. 4 Refs. 455, 440, and 410); and storing the data (Fig. 1 Ref. 104, col. 6 lines 11-15) .

However, Dawson does not specifically disclose receiving one or more destination addresses indicating a storage destination.

Tsang discloses (col. 4 lines 59+ and col. 5 line 35, different address location for compressed and uncompressed data reads on this limitation) for the purpose of reducing memory cycles and power consumption (col. 5 lines 46-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate receiving one or more destination addresses indicating a storage destination as shown in Tsang into the invention of Dawson because it would reduce memory cycles and power consumption.

As to claims 32, 34, and 36, Dawson and Tsang disclose the invention as claimed in the above. Dawson further discloses wherein the compression mode comprises one of lossless compression, loss compression, or no compression, wherein, in said selectively compressing: the data is compressed using a lossless compression format if said compression mode indicates lossless compression for the data; the data is compressed using a lossy compression format if said compression mode indicates lossy compression for the data; and the data is not compressed if said compression mode indicates no compression for the data (Fig. 4 Refs. 455, 440, and 410).

As to claim 119, Dawson and Tsang disclose the invention as claimed in the above. Dawson further discloses predetermined compression ration (lossless, lossy

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and no compressions in abstract read on this limitation since each compression has different ratio).

As to claim 120, Dawson and Tsang disclose the invention as claimed in the above. Dawson further discloses the storing does perform address translation of the one or more destination addresses (col. 5 lines 40-41, Intel architecture reads on this limitation since Intel processor uses virtual mode).

As to claim 121, Dawson and Tsang disclose the invention as claimed in the above. Dawson further discloses wherein the computer system includes an operating system .

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of Gentile U.S. Patent 5,539,865.

As to claim 12, Dawson discloses the invention as claimed in the above. However, Dawson does not specifically disclose wherein the data comprises one of application data or video/graphics data; wherein the compression mode is determined to be lossless compression if the data comprises application data; and wherein the compression mode is determined to be lossy compression if the data comprises video/graphics data.

Gentile discloses wherein the data comprises one of application data or video/graphics data; wherein the compression mode is determined to be lossless (LZW)

compression if the data comprises application data; and wherein the compression mode is determined to be lossy compression (JPEG) if the data comprises video/graphics data (col. 5 lines 12-24) for the purpose of prevent data error and reducing memory cycles and power consumption.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate wherein the data comprises one of application data or video/graphics data; wherein the compression mode is determined to be lossless compression if the data comprises application data; and wherein the compression mode is determined to be lossy compression if the data comprises video/graphics data as shown in Gentile into the invention of Dawson because it would prevent data error and reduce memory cycles and power consumption.

9. Claims 26, 27, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (Oka) JP405204747A in view of *Dawon*, U.S. Patent 5,553,160.

As to claim 26, Oka discloses a computer system utilizing storage of data, the computer system (Fig. 1) comprising: a CPU (Fig.1, CPU), a system memory (Fig. 1 Ref. 12) which stores data used by the CPU for executing one or more applications, wherein the system memory also stores an operating system (blocks 22-28); a memory controller (Fig. 1 Ref. 10 and Constitution) coupled to said system memory and said CPU, wherein said memory controller performs memory control functions for said system memory, wherein said memory controller includes a compression/decompression engine (Fig. 1 Refs .14/16) comprised in said memory

controller for compressing and decompressing data transferred to or from said system memory; wherein the memory controller is operable to receiving uncompressed data (Fig. 1 Ref. 14)

However, Oka does not disclose the steps of determining a compression mode for the data, wherein the compression mode comprises one of lossless compression, lossy compression, or no compression; selectively compressing the uncompressed data, wherein the compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory.

Dawson does not disclose determining a compression mode for the data (Fig. 1B), wherein the compression mode comprises one of lossless compression, lossy compression, or no compression (abstract lines 12-18); selectively compressing the uncompressed data, wherein the compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory (abstract lines 12-18) for the purpose of reducing required storage size.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate determining a compression mode for the data, wherein the compression mode comprises one of lossless compression, lossy compression, or no compression; selectively compressing the uncompressed data, wherein the compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory as shown in Dawson into the invention of Oka because it would allow to reduce storage requirement. Dawson also discloses a system memory (Fig. 1 Ref. 12) which stores data used by the CPU for executing one

or more applications, wherein the system memory also stores an operating system (col. 5 lines 45-47 and col. 6 lines 12-14)

As to claim 27, Oka and Dawson disclose the invention as claimed in the above. Dawson further disclose wherein the compression mode is determined in response to one or more of: a requesting agent which provides the data; an address range where the data is stored; and/or a data type of the data (Fig. 4, data size reads on this limitation).

As to claim 30, Oka and Dawson disclose the invention as claimed in the above. Dawson further discloses types of data (Fig. 4, data size reads on this limitation).

10. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (Oka) JP405204747A in view of *Dawon*, U.S. Patent 5,553,160 and further in view of Tsang U.S. Patent 5,961,617.

As to claim 28, Oka and Dawson discloses the invention as claimed in the above. However, neither Oka nor Dawson specifically discloses memory controller is operable to receive one or more destination addresses and to analyze the one of more destination addresses to determine the compression mode.

Tsang discloses memory controller is operable to receive one or more destination addresses and to analyze the one of more destination addresses to determine the compression mode (col. 4 lines 59+ and col. 5 line 35, allocation of

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compressed and uncompressed memory locations reads on this limitation) for the purpose of reducing memory cycles and power consumption (col. 5 lines 46-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate memory controller is operable to receive one or more destination addresses and to analyze the one of more destination addresses to determine the compression mode as shown in Tsang into the combined invention of Oka and Dawson because it would reduce memory cycles and power consumption.

As to claim 29, OKA and Dawson disclose the invention as claimed in the above. Tsang further discloses requesting agents (col. 5 line 32, SMART mode).

Allowable Subject Matter

11. Claims 58-70 and 95-118 are allowed.

Claims 24-25 and 122 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

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A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong C Kim whose telephone number is 703-272-4181. The examiner can normally be reached on M-F 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt M Kim can be reached on (703) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to TC-2100:
(703) 872-9306

A handwritten signature in black ink, appearing to be 'H. K.', is written over the text 'Primary Patent Examiner'.

HK
Primary Patent Examiner
January 20, 2005